

The background of the slide is a photograph of a beach. In the foreground, there is a large pile of clams on the sand. In the middle ground, the ocean is visible with a pier extending into the water. The sky is clear and blue.

Michigan's Aquatic Invasive Species State Management Plan

Aquatic Invasive Species Advisory Council
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What Are Aquatic Invasive Species?

- A species that is not native and whose introduction causes, or is likely to cause, economic or environmental harm or harm to human health.



What is an AIS State Management Plan?

1996 National Invasive Species Act (NISA) reauthorizes and amends the Non-indigenous Aquatic Nuisance Prevention Control Act of 1990 (NANPCA)

- Governor may prepare and submit a comprehensive management plan
- Identify areas or activities for which technical, enforcement, or financial assistance is needed to eliminate or reduce the environmental, public health, and safety risks associated with aquatic nuisance species
- Identify the management practices and measures that will be undertaken to reduce infestations of aquatic nuisance species
- Plans approved by the Federal Aquatic Nuisance Species task Force are eligible for federal grants for plan implementation



History of Michigan's AIS State Management Plan

1996

MI's first AIS State Management Plan

- Prevent new introductions
- Limit the spread
- Abate the effects
- Information and Education
- Research and Monitoring
- Regulation and Policy

2002

Plan Update

- Summary of accomplishments
- Stakeholder/public input
- Similar organizational structure

2010

The Great Lakes Restoration Initiative

- AIS program cohesiveness
- Update the Plan
- Implement priority activities





State of Michigan AIS team

- Department of Environmental Quality
 - Water Resources
 - Office of the Great Lakes
- Department of Natural Resources
 - Fisheries
 - Wildlife
 - Parks and Recreation
 - Law Enforcement
- Department of Agriculture
 - Pesticide and Plant Pest Management
 - Animal Industry
- Others
 - Department of Transportation
 - Forestry
 - Attorney General



Why care about Aquatic Invasive Species?

- Environmental harm
 - ↓ Native species (abundance & diversity)
- Economic harm
 - ↓ Commercial and recreational fisheries
 - ↓ Property values
 - ↓ Tourism
 - ↑ Costs for utilities and other industries

Total costs of AIS

**All AIS in GL
region**

**\$5.7 billion
per year**

Economic losses due to AIS
caused ecological impacts
(damages) + management and
control costs =
the total economic impact

**GL fishery
\$4.5 billion
per year**

**Aquatic +
terrestrial
invasive species
nationally
\$137 billion/year**





AIS State Management Plan (SMP) in a nutshell

- Outlines new actions for implementation in addition to maintaining and enhancing existing efforts to adequately
 - prevent the introduction of new AIS
 - limit the dispersal of established AIS
 - detect and respond to new invaders
 - minimize the harmful effects of AIS in Michigan waters
- Waters includes:
 - Great Lakes
 - connecting channels
 - rivers and streams
 - inland lakes
 - wetlands

AIS SMP in a nutshell cont.

- Identifies strategic actions in categories including:
 - legislative and policy
 - regulation (including compliance, enforcement, and inspection)
 - information and education
 - research and monitoring
 - early detection and rapid response (EDRR)
- Covers nonnative, aquatic organisms including:
 - microorganisms (pathogens)
 - invertebrates
 - algae
 - aquatic vascular plants
 - fish
 - other animals
 - and parasites
- Organisms that cause harm to the ecosystem, environment, economy, or human health
- Plan uses a vector and pathway approach

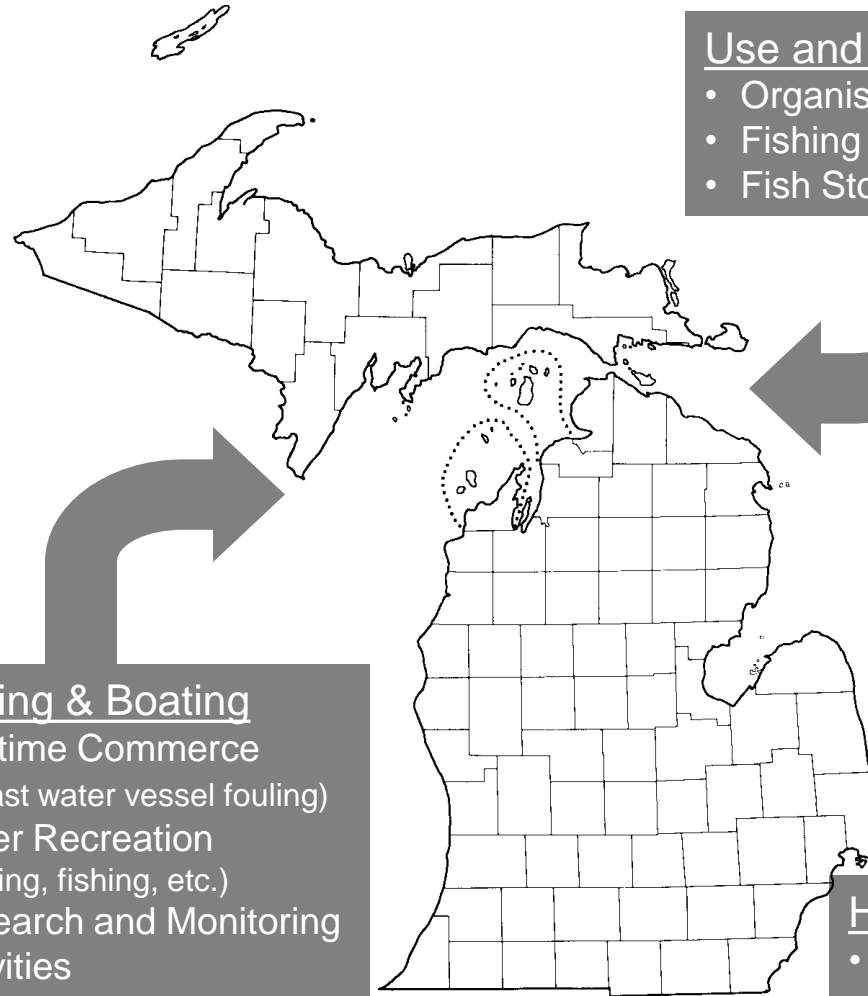




AIS State Management Plan Update: Goals

- I. **Prevent** new introductions of AIS into Michigan waters
- II. **Limit the spread** of established populations of AIS throughout Michigan waters
- III. Develop a statewide interagency **early detection and rapid response** program to address new invasions of AIS
- IV. **Manage and control** AIS to minimize harmful ecological, economic, social, and public health impacts resulting from established populations

Vectors and Pathways



Use and Trade of Organisms

- Organisms in Trade
- Fishing (live bait)
- Fish Stocking and Hatchery Activities

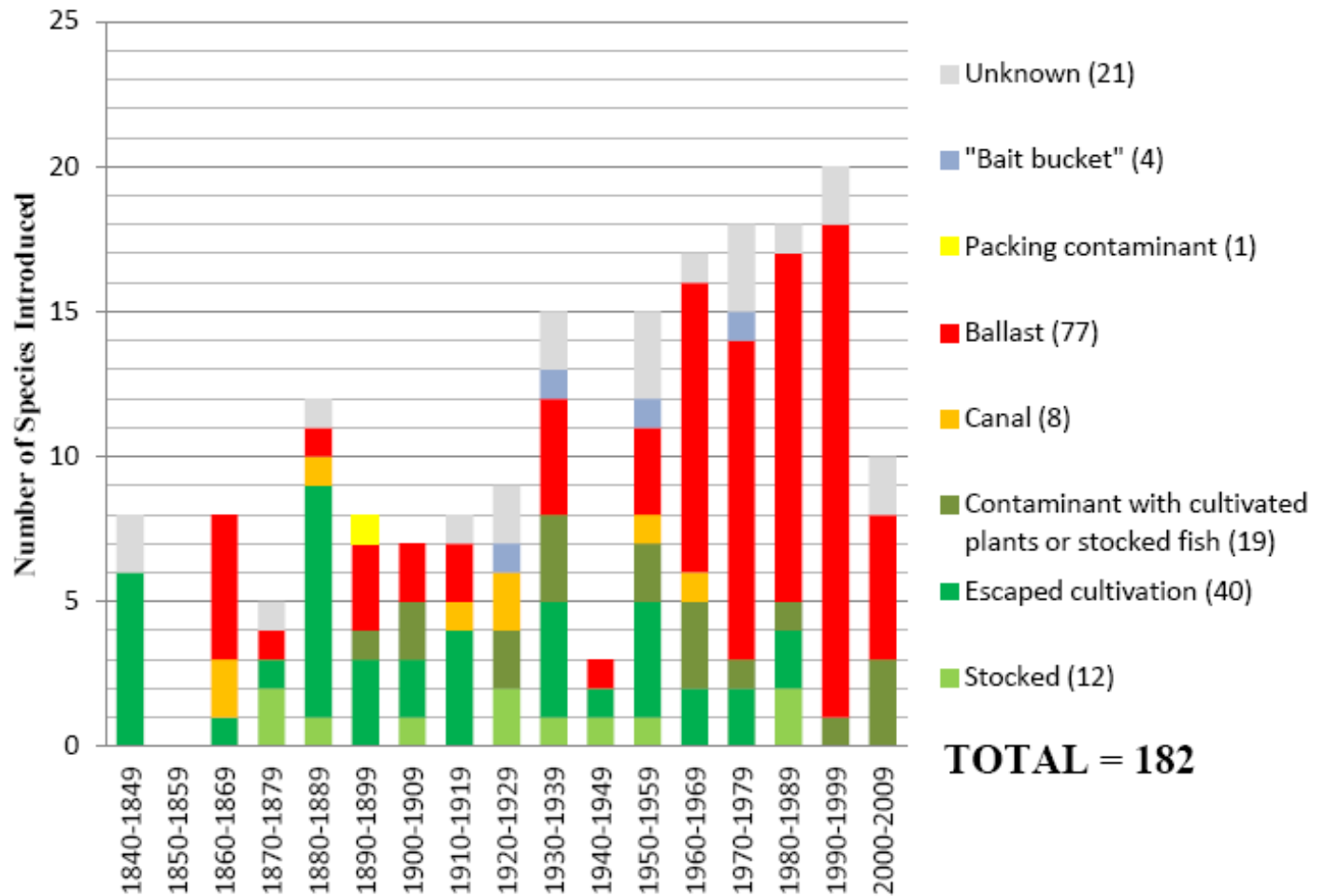
Shipping & Boating

- Maritime Commerce (ballast water vessel fouling)
- Water Recreation (boating, fishing, etc.)
- Research and Monitoring Activities

Habitat Alteration

- Habitat Modification and Restoration
- Canals and Lift Locks
- Transportation facilities

Introduction of non-indigenous species to the Great Lakes



Implementation Table

- Summary of strategic actions
 - Current and recommended

Goals 1 and 2: Prevent new AIS introductions and limit the spread of AIS via Maritime Commerce - Ballast water							
Objective	Strategic Action	Measure of Success	Due	Lead State Agency	Cooperating Agency or Organizations	Estimated State Cost	Status
A. Prevent introductions of AIS through the development and implementation of state and federal ballast water <u>legislation and regulation.</u>	1. Implement current ballast water reporting program per Section 3103a of Part 31 of the NREPA.	Issue report.	Annually	DEQ-OGL	Regulated community	Minimal- a small portion of an existing FTE.	On-going
	2. Implement state ballast water control permitting program per Section 3112 of Part 31 of the NREPA (See Objective B, Strategic Action #2).	(See Objective B, Strategic Action #2).	(See Objective B, Strategic Action #2).	DEQ-WRD		Currently, approximately 0.25 of an FTE addresses the permit related strategic actions.	On-going
	3. Ensure state and federal ballast water legislation and regulations are tied to current environmental protection issues and needs.	Evaluate existing state legislation and update if needed. Track and provide timely comments and actions on new ballast water control legislation and regulations proposed at the state and federal levels including regulations proposed by the USCG and the USEPA's next VGP. Report number of comment letters submitted.	State legislation- 2015. Federal legislation- Annually	DEQ-OGL and DEQ-WRD	International and federal agencies, other GL states, provinces, tribes, researchers, regulated community, etc.	An additional 0.5 FTE is used to address the remaining ballast water-related strategic actions. Total=\$100,125/year	On-going
	4. Develop and issue a Section 401 Water Quality Certification for the USEPA's draft next VGP with conditions necessary to ensure ballast water and other discharges incidental to the normal operation of commercial vessels are protective of Michigan waters.	Issue, deny, or waive 401 certification.	June 30, 2012	DEQ-WRD	Other Great Lakes state agencies		As needed based on USEPA's permit issuance.



Recommendations: Michigan Top AIS Priorities

1. Prevent new AIS introductions

- Canals and waterways
- Ballast water discharges
- Organisms in trade

2. Develop early detection/rapid response capacity

- Collaboration, communication, coordination
- Information and education
- Long-term funding



Timeline 2012

Federal ANS Task Force considers plans twice a year. Must be submitted 30 days prior to semi-annual meeting, which is usually the first week in November.

- Draft released to public March 23rd
- Draft submitted to ANS Task Force March 28th
- Partner meeting April 12th
- Public comment period closes May 1st
- ANS Task Force comments expected May 11th
- All revisions must be complete by July 1st
- State Department approvals by August 15th
- Submit to Governor's office September 1st
- Governor submits to Federal ANS Task Force October 1st
- Final ANS TF approval by December 31st



AIS Program Funding

- Short-term GLRI grant via US Fish and Wildlife Service
- Small US Fish and Wildlife Service annual grant (<\$40k) not funded in draft 2013 budget
- Recommendations on funding level for AIS Program and long term funding source
- Information compiled on other states and funding levels/sources

A photograph of a beach at low tide. In the foreground, several large, light-colored clam shells are scattered on the wet sand. The middle ground shows the calm blue water of the ocean. In the background, a long pier extends into the water under a clear sky. A semi-transparent white box with a black border is centered over the image, containing the word "Questions?".

Questions?